

TABLE OF CONTENTS

Section 1	Executive Summary	1-1
1.1	Project Overview	1-1
1.2	Facility Description.....	1-1
1.3	Project Schedule.....	1-2
1.4	Project Selection	1-2
1.5	Project Alternatives.....	1-3
	1.5.1 No Project Alternative	1-3
	1.5.2 Interconnection Alternatives	1-3
1.6	Environmental Considerations.....	1-4
	1.6.1 Air Quality	1-4
	1.6.2 Water Resources	1-4
	1.6.3 Wastewater.....	1-4
	1.6.4 Other Impacts.....	1-5
1.7	Summary	1-5

TABLE OF CONTENTS

1.1 PROJECT OVERVIEW

Imperial Irrigation District (IID or “the Applicant”) is seeking a Small Power Plant Exemption (SPPE) for the El Centro Unit 3 Repower Project (Unit 3 Repower Project or Project), located at IID’s existing El Centro Generating Station (ECGS) in the City of El Centro, California. The Project will result in a net increase of approximately 84 megawatts (MW).

IID is a community-owned utility providing irrigation water, farm drainage services, and electric power to nearly 125,000 customers in its 6,471 square mile service territory, located in Imperial County and parts of San Diego and Riverside counties. IID has been experiencing rapid load growth in its service territory (approximately 7 percent [%]) and has established a management goal to reduce its dependency on power from outside its service territory to below 50%. Due to extremely high summer temperatures in the IID service territory, and the importance of air conditioning to IID’s customers, IID must provide highly reliable power to its customers. At the same time, IID also desires to increase the energy efficiency of its generation portfolio. The Unit 3 Repower Project will increase fuel efficiency, increase water use efficiency, offer emissions offsets, and offer significant benefits to the IID transmission system and control area.

In addition, IID must comply with Assembly Bill 380, which requires installed capacity to meet reserve requirements. Section 2 of Assembly Bill 380 (approved by the Governor of California on September 29, 2005) adds Section 9620 to the Public Utilities Code and requires that each local publicly owned electric utility servicing end-use customers prudently plan for, and procure, resources that are adequate to meet its planning reserve margin, peak demand, and operating reserves, sufficient to provide reliable electric service to its customers.

Assembly Bill 380 requires IID to maintain physical generating capacity adequate to meet its local requirements. IID and others have been relying on firm energy transactions covered by Schedule C of the Western Systems Power Pool (WSPP) Agreement to meet part of its peak load requirements. This is changing not only for IID, but for other load serving entities in California.

This SPPE Application has been prepared in accordance with the California Energy Commission’s (CEC) Power Plant Site Certification regulations. This SPPE Application provides:

- A detailed description of the Project and the City of El Centro community
- An assessment of the likely impacts of the Project on the existing environment
- Proposed mitigation measures to ensure that environmental issues are properly and responsibly addressed to a level of less than significance
- A discussion of the applicable laws, ordinances, regulations and standards (LORS)

1.2 FACILITY DESCRIPTION

The Unit 3 Repower Project will be located on approximately 4.0 acres (Project Site) within the existing ECGS, located at 485 East Villa Avenue, in El Centro, California. The ECGS represents the largest generation complex on the IID system and is centrally located in the southern part of the IID service territory, within a major IID load center. The Project Site and the Project’s Temporary Construction Area are entirely located within the 150 acre IID owned

property that contains the ECGS (ECGS Site). Therefore, there are no off-site impacts as a result of the Project.

The Project entails replacing the existing boiler with an 80 MW class dry low nitrogen oxide(s) (NO_x) combustion turbine generator (CTG) and heat recovery steam generator (HRSG) to supply steam to the existing Unit 3 steam turbine generator (STG). The Project will replace an existing steam generating unit and will be constructed wholly within the existing ECGS Site. Common ECGS plant systems that support the existing ECGS Unit 3 will continue to be used for the Project. These systems include the STG, cooling system, water treatment system, water supply system, control room, fire system, ammonia system, and El Centro Switching Station. The existing ECGS Unit 3 boiler will be abandoned in place.

The Project will be electrically interconnected with the 92-kilovolt (kV) yard of the El Centro Switching Station via a 2,350 foot 92 kV overhead transmission line. The new transmission line will be contained within the existing 150-acre ECGS Site. Modifications to the existing Southern California Gas Company (SCGC) interconnection will be completed within the ECGS Site. No modifications are required to the existing ECGS raw water supply or water treatment system. Wastewater will be disposed of using a new ECGS deep well injection system. This deep well injection system is being installed independent of this Project and will be operational by summer 2008.

1.3 PROJECT SCHEDULE

IID anticipates receiving a Final Decision of this SPPE application from the CEC in the fourth quarter of 2006. In parallel with the SPPE process, IID will advance local permits and licenses required for construction and operation, and will select an engineering, procurement, and construction (EPC) contractor. Upon receipt of construction permits (including the SPPE) the EPC contractor will be released to start detailed engineering and procure major equipment. Mobilization and on site construction activities are planned for September 2007. IID anticipates that construction will be complete and that the Unit 3 Repower Project will be available to serve customer load no later than May 2009.

1.4 PROJECT SELECTION

The Project was driven by the generation resource needs identified by IID Supply and Trading, which is responsible for 10-year resource planning and the procurement of sufficient energy resources for IID's customers.

To obtain required generation resources, IID Supply and Trading issued a Request for Proposal (RFP) seeking qualified projects or market products to serve IID intermediate and base loads (RFP #484). Although bids were received from outside organizations, the competing proposals (1) did not meet the established credit criteria in RFP #484, (2) underlying projects were located outside of the IID service territory and exacerbated transmission import constraints, and/or (3) did not compete favorably with the proposed Project on an economic basis.

In response to this RFP, IID Generation identified the Unit 3 Repower Project in response to the request for up to 150-MW of base load or intermediate capacity.

The Unit 3 Repower Project was selected based on the existing natural gas transportation, electric transmission, and water supply infrastructure that could support the Unit 3 Repower Project without infrastructure improvements and new linear facilities. The absence of new linear facilities such as new transmission lines or natural gas pipelines outside of the ECGS Site limited the potential of any environmental impacts associated with the Project to within the ECGS Site.

1.5 PROJECT ALTERNATIVES

1.5.1 No Project Alternative

Unlike a green-field development Project, the Unit 3 Repower Project creates significant environmental benefits compared with a No Project Alternative. The No Project Alternative represents continued operation of the existing ECGS Unit 3 STG with the existing emissions, water use efficiency and the requirement for higher future operating hours of the Unit 3 STG as IID loads grow.

The Project design described in Section 2 represents a Project that the Applicant believes offers significant environmental benefit over the No Project Alternative by increasing fuel efficiency 90%, increasing water use efficiency 60%, and resulting with Unit 3 complying with current best available control technology (BACT) standards and providing emission offsets. These environmental benefits are eliminated in the No Project Alternative.

The proposed Project design, the related capital and operating cost and associated environmental benefits were balanced such that the Project could offer an economic advantage to IID customers over alternative green-field projects and power purchase agreements offered IID Supply and Trading RFP #484.

While increased environmental benefits associated with alternative design considerations may be available, these design considerations represent significant costs and would render the Project uneconomic thus denying any environmental or energy efficiency benefits. While the Applicant has considered alternative design considerations and the associated environmental benefits, the economic value was the basis of the award under RFP #484 and the foundational assumption to assure that competitive projects are advanced to serve IID customers.

1.5.2 Interconnection Alternatives

The Project will interconnect to the existing SCGC high pressure gas metering station on the existing ECGS Site. SCGC provides natural gas transportation service to the ECGS via two pipelines (10 and 12 inches) running south from the SCGC Niland Regulation Station to ECGS.

As part of the 10-year planning process performed by IID Supply and Trading, IID executed a Precedent Agreement with North Baja, LLC (a subsidiary of TransCanada) in October 2005, which will, if fully implemented, provide an additional 110,000 million British thermal units (MMBtu) per day of natural gas transportation capacity for gas supplies to Imperial Valley. The North Baja gas transportation capacity could become the primary gas transportation supply for ECGS including the Unit 3 Repower Project if: (1) the lateral project is successfully permitted and constructed, and (2) all conditions precedent under the Precedent Agreement are achieved or waived; and IID Supply and Trading takes service under the Firm Transportation Service Agreement with North Baja, LLC. The 46-mile lateral is being permitted through a separate

permitting process led by Federal Energy Regulatory Commission (FERC) and the California State Lands Commission. As such, any environmental impacts associated with this pipeline are being analyzed as part of the FERC permitting process. Therefore, this North Baja pipeline has been considered an alternative natural gas transportation source for the Project.

1.6 ENVIRONMENTAL CONSIDERATIONS

Potential Project environmental impacts have been evaluated and the results of the evaluation are submitted with this application. Below is an overview of some of the environmental disciplines.

1.6.1 Air Quality

The Project will comply with BACT, as determined by the Imperial County Air Pollution Control District (ICAPCD). ICAPCD made an initial BACT determination for the Project and has also made an initial determination of the emission reduction credits (ERC) that will be required for Project operation. The calculation was based on the “worst case” operations profile. Most of the ERC requirements will be satisfied by credits currently banked by IID and associated with reductions in emissions from retired units at the ECGS. IID has purchased additional ERCs for particulate matter less than 10 microns in diameter (PM₁₀) from El Toro Export, which will satisfy the remaining ERC requirements.

While the ERC requirements for the Project benefit from a netting with the existing Unit 3 boiler, the air modeling and presentation of air quality impacts takes no credit for the reduction in air emissions associated with the existing Unit 3 boiler and cooling tower.

1.6.2 Water Resources

At the proposed air permit limits, the Unit 3 Repower Project, with the addition of 84 MW, would require an additional 96 acre-feet of water on an equivalent operating hour basis. However, the Applicant has offered mitigation in form of capping the water usage to the same amount that would be used for the existing Unit 3 (based on the same operating hours); therefore, there will not be an increase in water usage. The water use efficiency offered by the Project represents a 60% improvement over the existing Unit 3 water consumption rate of gallons per kilowatt per hour (gallons/kWhr) basis. The consumption of gallons/kWhr will drop from a maximum of approximately 0.99 gallons/MWhr to between 0.22 to 0.46 gallons/kWhr.

1.6.3 Wastewater

The ECGS currently disposes of its wastewater under the conditions of a NPDES permit. The NPDES permit for the ECGS must be revised to reflect new discharge limitations by July 1, 2009. IID has selected a deep well injection system to replace the disposal methods under the NPDES permits. The deep well injection system is scheduled for completion by summer 2008, one year in advance the compliance date of July 1, 2009. The Unit 3 Repower Project will utilize the existing ECGS wastewater disposal system, as modified by the ECGS deep well injection system, for elimination of wastewater from the Project Site.

1.6.4 Other Impacts

There will be minor impacts to area traffic and noise levels, primarily during construction. There will be minor impacts that, with mitigation, are considered to be insignificant, such as impacts to biological and cultural resources. There will be relatively minor impacts in the areas of visual resources, Paleontological resources, and geological hazards and resources. Finally, current land uses, soils, and socioeconomic impacts from the Project construction and operation will be negligible.

1.7 SUMMARY

In conclusion, construction and operation of the Project will result in the addition of efficient generation resources within the IID territory while resulting in no unmitigated adverse environmental impacts. The absence of any Project components outside of the ECGS Site and the use of common systems of the ECGS reduced environmental impacts associated with the Project to less than significant. Therefore, the Applicant believes that the Unit 3 Repower Project complies with the requirements for the CEC's SPPE process.

